Application No.: 10/574,831 Examiner: Carol M. Koslow

Art Unit: 1793

#### **REMARKS**

## Amendments to the Claims

The word "coding" in each claim has been changed to "composition for forming a coding".

Support for the amendment added at the end of claim 1 is supported by the original specification in paragraph [0031] and [0032]. Further discussion regarding the language used in this amendment appears below in Applicants' remarks regarding the rejection of the claims under 35 U.S.C. §112.

Claims 2 and 11 have been amended to avoid the objections raised by the Examiner based on undue multiplicity and the Examiner's observation that the claims are not proper Markush claims.

Claim 18 has been amended to avoid the Examiner's objections with regard to this claim, as discussed below with regard to the rejection of the claim under 35 U.S.C. §112.

New claims 20-28 have been added to restore the original intended scope of protection sought by original claims 2 and 11.

# Amendments to Specification

The specification has been amended in an effort to further clarify the meaning of the terms "coding", "information", "complemented characteristically", "mutually complementary luminescence emissions" and "complementarily overlap", the meanings of which terms have been questioned by the Examiner. Each amendment finds support in the original specification and claims either explicitly or inferentially. Nothing has been introduced by way of the amendments to the specification that would be regarded as adding something new to the original disclosure by a person skilled in the art to which this invention pertains. Further discussion of specific amendments made to the specification appear below under the discussion regarding the rejection of the claims under 35 U.S.C. §112.

The specification also has been amended to restore reference to the original foreign patent documents to avoid the "new matter" objection raised by the Examiner.

### Amendments to the Abstract

The Abstract has been amended so that it is consistent with the amended claims.

#### Clarification of Meaning of "Coding"

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The Examiner objects to Applicants' apparent definition of the term "coding" as "information". It is respectfully submitted that the Examiner's statement does not properly reflect the intended meaning of the term "coding" as expressed by Applicant in the last response. In the last response (see last paragraph on page 11 of response) Applicant stated that "a coding" simply means information in the form of a code." A person skilled in the art would readily understand that the term "coding" does not simply mean "information" but rather information that can be detected or observed, such as a signal, character or data. The term does not mean abstract knowledge which could not form a code because such abstract knowledge could not be detected or observed. In the original specification the term "information" appears in paragraph [0028] where the term information is exemplified by a product code represented by coding 11 applied to a substrate 10 as shown in Figure 1. Thus, Applicants' attempt to explain to the Examiner the meaning of coding by using the term "information" was intended to be viewed in the context of a detectable or observable signal or character usable for communicating information, which is the manner in which a person skilled in the art would understand such term.

To avoid any possible misinterpretation of the term "coding", the specification has been amended in paragraph [0002] to define coding as "a detectable or observable signal or character for communication", which Applicant believes is consistent with the normal dictionary meaning of a code. Applicant submits that the record in this case with regard to the definition of "information" and "coding" is now complete and properly reflects the original intended meaning of these terms.

# Meaning of "Complemented Characteristically", "Mutually Complementary Luminescence Emissions" and "Complementarily Overlap"

While Applicant believes that a person skilled in the art would readily understand the meanings of the quoted terms shown in the heading above, in an attempt to further define the terms, paragraph [0005] has been amended to recite that the spectrum of luminescence emissions of the first luminescent substance overlaps in a subrange with a subrange of the spectrum of luminescence emissions of the second luminescent substance to define a joint or resultant emission range, or in other words "an envelope of luminescence emissions, that is detectable or observable as a combination of the two emission spectra, such that each of the first and second luminescent substances can be said to complement or mutually complement

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the other to produce the whole of the joint emission range or envelope of luminescence emissions.

The term "joint emission range" of course appears in the original version of this paragraph [0005] and the term "envelope of luminescence emissions" appears in the language of original paragraph [0032].

The new language merely explains in different words what the original language of paragraph [0005] expressed to a person skilled in the art relating to development of codes using luminescent materials. It is respectfully submitted that the language of the amendment merely refines the meaning of "complemented characteristically", "mutually complementary luminescence emissions" and "complementarily overlap" in different wording from the original language but which does not depart from the meaning and scope of the original language of this paragraph.

Thus, it should be clear to the Examiner that "complemented characteristically" means that each of the first and second luminescent substances can be said to complement the other to produce the whole of the joint emission range or envelope of luminescence emissions. The term "complement" is used in accordance with its normal dictionary meaning, as explained in the response to the prior action, which is incorporated herein by reference. To "complement" simply means "something that fills up or completes", which has been refined into the expression used in the amendment to paragraph [0005].

Likewise, the term "mutually complementary luminescence emissions" will be understood to mean the luminescence emissions of the first and second luminescent subtances that overlap and combine with each to define a joint emission range or an envelope of luminescence emissions.

Applicant respectfully submits that the term "complementarily overlap" can be readily understood from the context of the original language of paragraph [0014] considered with amended paragraph [0005]. Further, paragraph [0014] has been amended in a manner consistent with the amendment to paragraph [0005] to further expand the definition of "complementarily overlap".

The amendment to paragraph [0005] also makes clear the intended meaning of "complementarily overlap" and better expresses Applicants' prior arguments with regard to the two emission spectra combining to form a single joint emission range. Specifically, it is clear that the joint emission spectrum does not involve complete overlap of the first and second emission spectra and to the extent that Applicants' prior arguments and remarks were

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inferred by the Examiner as having such a meaning, Applicant now intends to establish in the record that the original intended meaning, as expressed in the amendment to paragraph [0005] is that the spectrum of luminescence emissions are the first luminescent substance overlaps in a subrange with a <u>subrange</u> of the spectrum of luminescence emissions of the second luminescent substance to define a joint emission range. In fact, this explanation was the original intent of Applicants' prior arguments and remarks with regard to the meaning of "complementarily overlap".

In view of the amendments to paragraphs [0005] and [0014], it is respectfully submitted that the Examiner's objections to the terms quoted in the heading above may be withdrawn and the same is respectfully requested.

# Objection to Amendment as Introducing New Matter

The U.S. patent numbers intended to replace the foreign patent document numbers have been cancelled and the specification has been restored to its original language identifying the foreign patent documents. Accordingly, the rejection based on new matter is now moot.

# Rejection of Claims 18 and 19 Under 35 U.S.C.§112

To the extent Applicant understands the Examiners objections to claims 18 and 19, claim 18 has been amended to remove the word "system" from the claim and to identify the value document as comprising a composition forming a coding comprising at least a pair of mutually associated luminescent substances, etc. The claim further recites that the at least one pair of mutually associated luminescent substances includes first and second luminescent substances which emit in a joint emission range located outside the visible spectra range, etc.

Applicant submits that claim 18 is fully supported by the specification in paragraphs [0020] - [0024] as well as [0027].

Applicant does not understand the Examiner's statement that "there is no teaching of a system comprising at least one pair of mutually associated luminescent substances and value documents comprising at least one of the substances that make up the pair. The claim does not recite that the value documents comprise at least one of the substances that make up the pair, but clearly recites that the value document comprises at least one pair of mutually associated luminescent substances, which are further characterized in the claim.

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Accordingly, withdrawal of the rejection of claims 18 and 19 under 35 U.S.C.§112 is

respectfully requested.

Rejection of Claims 1, 2, 10, 11 and 16-19 Under 35 U.S.C.§112

The rejection of claims 2 and 11 are now moot in view of the amendments made to

these claims, whereby the multiple ranges of overlap of emission spectra have been divided

between claims 2, 11 and new claims 20-28.

The Examiner's objections under 37 U.S.C.§112 to claims 1, 17 and 18 are now

believed to be moot in view of the amendments made to the specification and claims and the

discussion above with regard to the meaning of the terms "complemented characteristically",

"complementarily overlap", and "overlap each other complementarily".

The rejections of claims 18 and 19 on the basis that the Examiner regards the terms "a

coding system" to represent a term not used in the specification is now moot in view of the

amendment made to claim 18.

Provisional Double Patenting Rejection

Applicant will submit an appropriate terminal disclaimer upon an indication of

allowable subject matter in this application.

Apart from the provisional obviousness-type double patenting rejection, Applicant

submits that the application has now been placed fully in condition for allowance and passage

of the application to issue subject to the filing of a terminal disclaimer to overcome the

double patenting rejection is requested.

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Respectfully submitted,

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